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Punishing factors for special cases

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Abstract

After a colloquium talk of the second author on estimates of the form f(n)(z) /n! ≤ Cc (Ω, Π) (λΩ(z))n/ λΠ(f(z)), f ∈ A(Ω Π), z ∈ Ω for simply connected domains Ω and Π in ℂ, Ch. Pommerenke ([132]) proposed to look at (5.1) in the following way. The quotient (λΩ(z))n/ λΠ(f(z)) reflects the influence of the positions of the points z and f(z) in Ω and Π on the nth derivative f(n) (z), whereas the quantities Cn(Ω, Π) are factors punishing bad behaviour of Ω or Π at the boundary. This motivates the title of the present chapter as well as the titles of some our papers. © 2009 Birkhäuser Verlag AG.

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